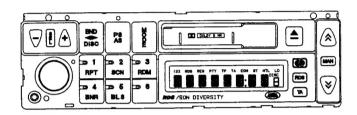
# clarion Service Manua

Published by Service Information Section



## **SPECIFICATIONS:**

[Radio section]

Circuit system: Tuning system: Superheterodyne Electronic tuning

Receiver range:

LW 153kHz to 279kHz

MW 531kHz to 1,602kHz

FM 87.5MHz to 108MHz

Intermediate frequency: LW 450kHz

MW 450kHz

FM 10.7MHz

Quieting sensitivity:

LW Less than 42dB

(at 20dB S/N)

MW Less than 35dB

(at 20dB S/N)

FM Less than 12dB

(at 30dB S/N)

Separation:

FM More than 20dB

Auto tuning stop sensitivity:

LW DX 20~40dB

LO 45~65dB

MW DX 20~40dB

45~65dB LO

DX 15~35dB FM

> 40~60dB 10

### **COMPONENTS:**

PU-9836A

1 Main unit 300-9550-00 1 Mounting bracket 11 341-1446-01 [ Removal tool

## ■ ANTI-THEFT-SYSTEM:

- · Releasing the ANTI-THEFT SYSTEM (When reinserting the car stereo or reconnecting the battery.)
- 1. Make the necessary wire connections.
- 2. Turn on POWER switch. ("CODE IN" is displayed.)
- 3. Using PRESET button 1 to 6, input the secret number.

After the last code number is entered the radio will operate.

LAND ROVER RDS/FM • MPX/MW/LW Radio Cassette Stereo with **CD Changer Control** 

Model

**PU-9836A** 

(Part No. PRC 7618)

[Tape section]

Reproduction system: 4 track, 2 channel stereo

cassette tape playback

4.76cm/sec (1-7/8 ips) Tape speed: Wow and flutter:

0.15% (W.R.M.S)

S/N ratio:

More than 56/48dB.

Dolby B ON/OFF (120 us)

More than 58/50dB.

Dolby B ON/OFF (70 us)

Cross talk:

More than 40dB More than 30dB

Separation: FF/REW time:

Less than 110sec. (C-60)

[Synthesis]

Power Supply voltage:

DC 14.0V (10.8V to 15.6V)

Negative ground

Current consumption:

Less than 3mA (at ACC OFF)

Load impedance:

660Ω  $0.125V \pm 6dB$ 

Line out level:

Quieting power output: More than 8W×4

Dimensions:

Weight:

Width 178mm

Height 50mm

Depth

160mm

1.5ka

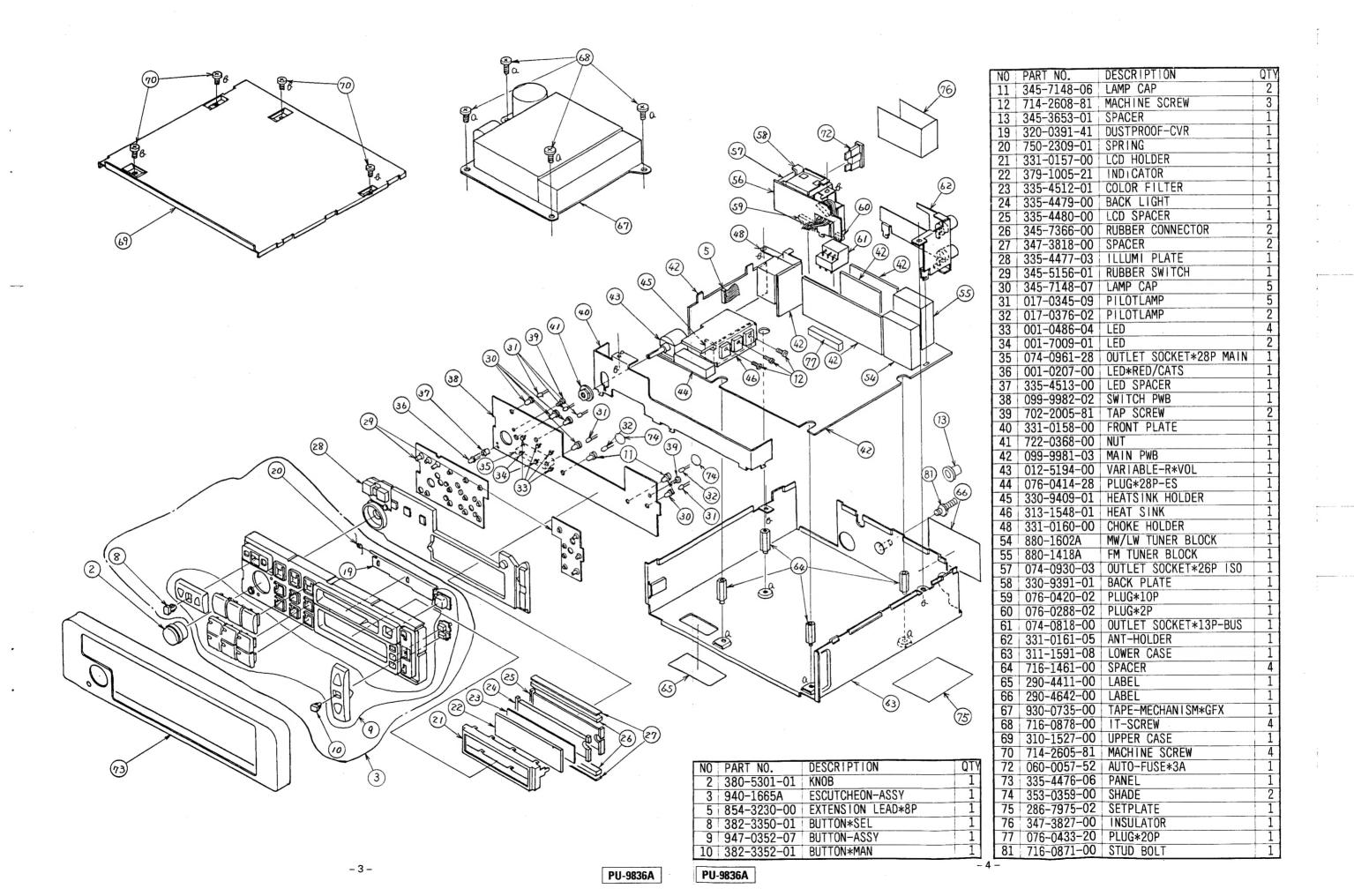
- Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
- "DOLBY" and the double-D symbol 🚺 are trademarks of Dolby Laboratories Licensing Corporation.
- · In case the wrong code was entered.
- 1. Finish entering all four digits.
- 2. Press BAND button for approximetely two seconds.
- 3. Input the correct code.
- Waiting time for releasing the ANTI-THEFT SYSTEM (If the wrong code was entered at three times.)
- 1. Wait for more than an hour at the necessary wire connections.
- Press BAND button for two seconds.
- Input the correct code.

## **ADJUSTMENT:**

ITEM	TEST-POINT		PROCEDURE		
07	IFT601	2. INPUT THE 98.1MHz/3	. VOLT-METER TO TP3 AND TP4.  OdB SIGNAL(no MOD), AND ADJUST THE READING OF  TO 0±20mV BY IFT601.		
Limiter	VR602	1. INPUT THE 98.1MHz/6	TO 10dB, AND ADJUST THE OUTPUT LEVEL TO -3dB		
SD	VR601		AND TP10(5V). 23dB SIGNAL(400Hz,30% MOD). TT THE VOLTAGE OF TP5 IS IN THE RANGE OV TO 5V.		
S-meter	VR102	1.CONNECT THE DIGITAL 2.INPUT THE 98.1MHz/3 3.ADJUST THE LEVEL TO	S5dB SIGNAL(400Hz no MOD).		
SASC	VR603	1. INPUT THE 98.1MHz/65dB SIGNAL(7KHz 30% MOD). 2.SET THE OUTPUT TO OdB BY VR603 FULLY COUNTER-CLOCKWISE.(0.775 3.SET THE SSG OUTPUT TO 43dB, AND ADJUST VR603 SO THAT THE OUTPULEVEL IS -2dB.			
Separation	VR604	THE EXTERNAL MODULA 2.SET THE STEREO MODU	CONNECT THE OUTPUT OF A STEREO MODULATOR TO TION TERMINAL, AND INPUT A 65dB SIGNAL. VLATOR TO THE L OR R-ch AND ADJUST VR604 SO CPARATION IS OBTAINED.(MORE THAN 20dB)		
CW	VR501	1.CONNECT THE MILLI V 2.INPUT THE 98.1MHz/6 TO 1.77V±1dB BY VR	S5dB SIGNAL(100Hz, MONO) AND ADJUST THE LEVEL		
DK	VR502	2. CONNECT THE OSCILLO	55dB SIGNAL (no MOD,SK DK on) SCOPE TO TP9,AND ADJUST VR502 SO THAT TPUT WAVEFORM IS MAXIMUM.		
Tape speed	TR101	1. INSERT A TAPE SPEED	TEST TAPE (3000Hz). ED TO 3000±45Hz BY TR101.		
Dolby NR	VR401 VR402	1. INSERT A DOLBY LEVEL TEST TAPE (400Hz-200nWb/m), CONNECT THE MILLI VOLT-METER TO TP1(L) AND TP2(R). 2. ADJUST VR401(L) AND VR402(R) TO OBTAIN AN OUTPUT OF 388mV±1dB			
	TOP VIEW	ADJUSTMENT POINT			
VF 601— VR 604—— TR 101—	VR502	VR 603 VR 602 VR 102 VR501 VR101	TP5  TP6  TP7  TP1  TP1  TP1  TP8  TP2		
	MAIN PWB		MAIN PWB		

MAIN PWB
\*DIVER FIX(MAIN):Connect TP12 to earth.

## **■ EXPLODED VIEW • PARTS LIST:**



## ■ PARTS LIST:

## Electrical sectionSWITCH P.W.B

REF NO.	PART NO.	DESCRIPTION	QTY	REF NO.	PART NO.	DESCRIPTION	TOT
D104	001-0207-00		1	IC102, 103	051-6005-00	IC LC75821E	2
D101-103, 107	001-0486-04	LED GL1HS111	4	C101	176-3301-00	CHIP-C 33pF	1
D105, 106		LED GL1HS112	2	C102	178-1032-05	CHIP-C 0.01 µF	1
	043-1601-10	CHIP-C 0.1 µF	2	C103, 106		CHIP-C 680pF	2
IC101	051-1345-15	IC MB88307APFG	1				

## • MAIN P.W.B

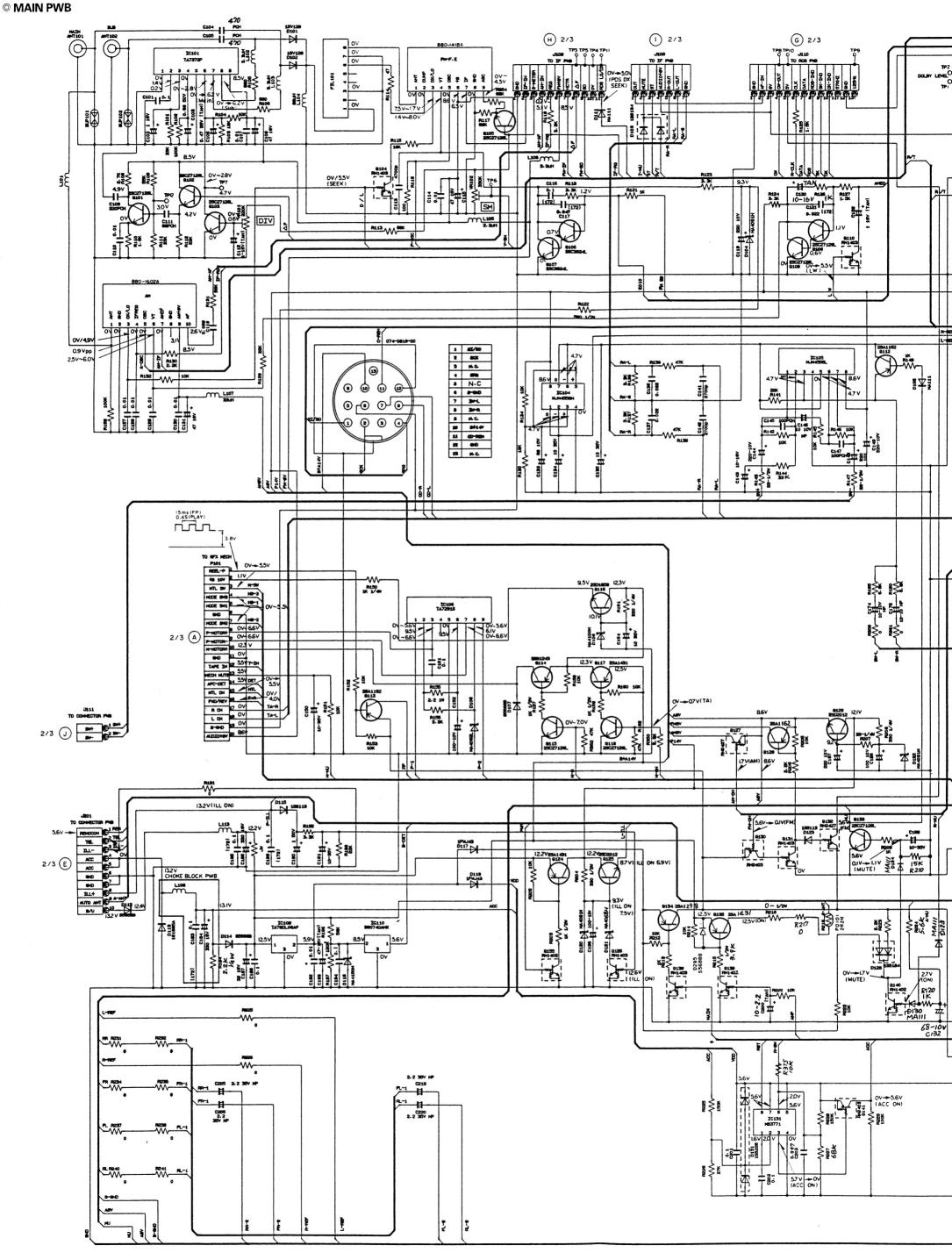
REF NO.	PART NO.	DESCRIPTION	QTY		PART NO.	DESCRIPTION	QT
D113	001-0188-01	DIODE 1S1885A	1	C119, 144, 148	042-0452-01	ELECTRO-C 10V 220 µF	10
D115, 123, 142	001-0330-00 001-0352-00	DIODE 188119 188176	3	149, 461, 712 713, 722, 723			
D103, 128, 146			5				
701, 702	001-0354-00	MA151WK	3	725 C636	043-1600-39	CHIP-C 0.039 µF	1
D145, 401	001-0356-05	DIODE 1SS181	2	C203, 517, 526	043-1600-33		8
0145, 401	001-0354-05	MA151WA		604, 608, 609	043-1000-47	CHIP-C 0.047 μΓ	0
D131, 143, 144	001-0367-00	DIODE 1SS226	6	627, 628			
151, 601, 602		MA157A	0	C514	043-1600-56	CHIP-C 0.056 µF	1
D106	001-0377-34		1	C118, 527, 631			3
0100	001-0376-34	MTZJ6. 2A	1	C436, 452	043-1600-82		2
D121	001-0377-39	DIODE MA4068H	1	C101, 151, 188	043-1601-10	CHIP-C 0.1 µF	25
D121	001-0376-40	MTZJ7.5A	1	194, 201, 202			-0
D120, 122	001-0377-47	DIODE MA4091M	2	233, 236, 249	1		
DILO, ILL	001-0376-48	MTZJ9.1C	_	253, 256, 456			
D104	001-0377-48	DIODE MA4091H	1	254, 402, 405			
0104	001-0376-49	MTZJ10A	-	460, 463, 503			
D108	001-0377-50	DIODE MA4100M	1	507, 510, 525			
2200	001-0376-51	MTZJ10C		528, 603, 614	1		
D116	001-0377-63		1	624			
	001-0376-64	MTZJ15C	-	IC119	051-0160-56	IC HD74LS07FPD	1
D107, 112, 114		DIODE \$5688B	4	IC104, 404	051-0350-55		2
295	001-0534-00	1SR139-100		1C502	051-0556-01		1
D117,118	001-0502-00		2	IC401, 402	051-0853-01		2
D105, 111, 124	001-0516-00	DIODE MA111	7	IC131	051-0869-05		1
129, 130, 137				1C106	051-1014-10	IC TA7291S	1
138				1C405	051-1038-01	IC CXA1102M	1
D101, 102	001-0579-00	DIODE 1SV128	2	IC115	051-1046-46		1
P0601		THERMISTOR *PTH60T102	1	IC109	051-1188-01	IC TA78DLOGAP	1
P0101		THERMISTOR *PTH61GR2R	1	10602	051-1250-00	IC TC4S66F	1
IFT602		IF-TRANS *MS3A	1	IC101	051-1282-00	IC TA7372P	1
IFT601		IF-TRANS *OV	1	IC117	051-1375-35	IC	1
L113	009-0470-02	CHOKE *B/U	1	IC105, 701-704	051-1407-00	IC NJM4556L	5
L109	009-0618-00		1	IC601	051-1525-00	IC TA8172AF	1
L101	010-2003-04	COIL *36uH	1	IC110	051-1556-05	IC S-80740AN	1
L620	010-2174-36		1	IC503	051-1817-00	IC TDA1581T	1
L621	010-2199-16	COIL *2.2uH	1	IC501	051-1819-00	IC SAA6579T	1
L105, 106, 112			3	1C403	051-5001-00	IC M51139FPA	1
L102, 103		COIL *3.3uH	2	IC116	052-1103-01	μPD17006AGF-625-3B9	1
L107, 111	010-2230-28		2	IC118	052-3109-01		1
L104	010-2230-33		1	SUP101, 102	060-0122-10		2
VR502	012-4318-00	VARIABLE-R *330	1	X102	060-0130-50		1
VR501	012-4318-04		1	FIL101	060-0235-00	BAND-PASS-FILTER	1
VR401, 402	012-4318-06	VARIABLE-R *10K-DBY	2	X601	060-0240-00	CERA-RESONATOR *IF 456K	
VR101		VARIABLE-R *220K	1	X101	061-1053-00		1
VR102		VARIABLE-R *330K	1	X501	061-3013-00		1
VR601	012-4863-06	VARIABLE-R *10K	1	0112, 113, 128	100-1162-00	TRANSISTOR 2SA1162	8
VR603, 604	012-4863-07	VARIABLE-R *22K	2	148, 701-704	100-1179-00	2SA1179	
VR602		VARIABLE-R *47K	1	Q134	100-1298-00		1
C193		TANTALUM-C 16V 47 $\mu$ F	1	0117, 124, 135	100-1431-00	TRANSISTOR 2SA1431	3
C120		TANTALUM-C 16V 10 $\mu$ F	1	Q114	101-1243-00	TRANSISTOR 2SB1243	1
C619			1	Q101-103, 105	102-2712-51	TRANSISTOR 2SC2712G, L	11
C198		ELECTRO-C 16V 100 μF	1	108, 109, 115	102-2412-50	2SC2412K-R, S	
C197, 710, 711	042-0378-00	ELECTRO-C 10V 220 µF	5	118, 133, 154			
709,724				605			
C112, 122, 635	042-0397-00	CHIP-C 16V 1 µF TAN	4	Q603	102-2715-00	TRANSISTOR 2SC2715	1
639				Q106, 107	102-3624-00	TRANSISTOR 2SC3624AL	2
C106		CHIP-C 25V 0.47μF TAN	1	Q116	103-1858-00	TRANSISTOR 2SD1858	1
C200			1	Q129, 125	103-2012-00	TRANSISTOR 2SD2012	2
C640		CHIP-C 35V 0.1 µF TAN	1	Q604	108-0372-00	FET 2SK372	1
C607	042-0403-01	CHIP-C 16V 10 µF TAN	1				
C260	042-0450-00	ELECTRO-C 6.3V 470 µF	1				

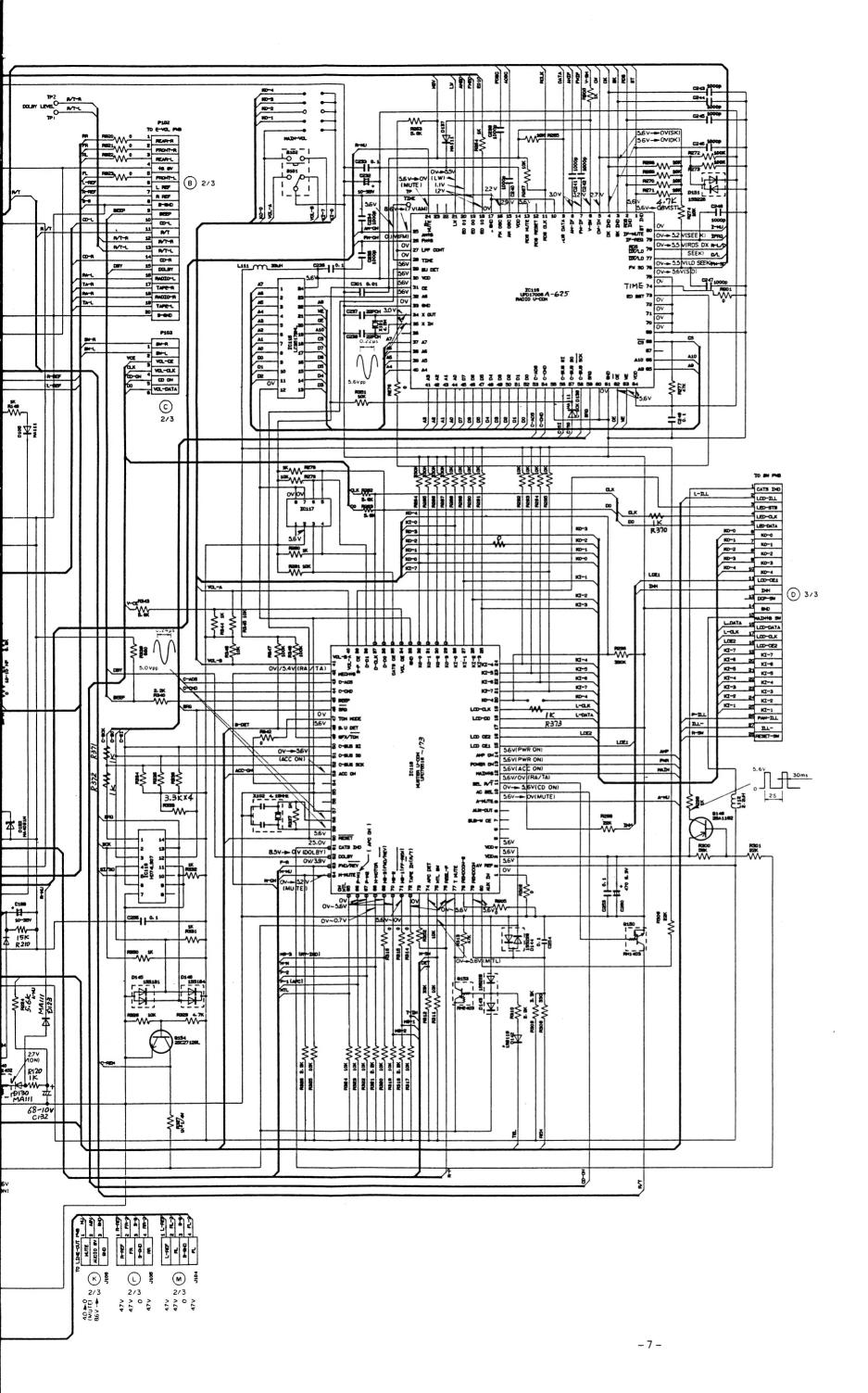
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0130, 141, 153		TRANSISTOR RN2403	3	C441, 447	178-1232-05		2
	125-0001-02	UN2112		C530		CHIP-C 0.018 µF	1
	125-0014-03			C606		CHIP-C 2200pF	1
Q139, 140, 155		TRANSISTOR RN1402	3	C136, 137, 605	178-2232-05		4
	125-2005-01	UN2211		617			
1	125-2020-02	DTC114EK	1	C141, 142	178-2722-05	CHIP-C 2700pF	2
	125-2031-02	MUN2211		C513		CHIP-C 0.027 μF	1
Q104, 110	125-2004-03	TRANSISTOR RN1403	11	C113	178-4722-05		1
126, 131, 136	125-2005-02	UN2212		C146, 174, 175	182-1066-25		5
150, 401, 501	125-2020-03	DTC124EK	1	703, 707			
502, 601, 602			1 1	C602	182-4763-23	ELECTRO-C 10V 47 µF	1
Q127, 132	125-0013-07		2	C108, 115	182-4763-33	ELECTRO-C 16V 47 µF	2
R155	114-2291-11	FILM-R 1W 2.2Ω	1	C102, 190, 412	183-1053-61	ELECTRO-C 50V 1 $\mu$ F	9
C116, 183, 185	172-1041-11	POLYESTOR-C 0.1 µF	5	417, 509, 515	100 1000 01	22201110 0 001 1201	
189, 212				611, 632, 634			
C121	172-2231-11	POLYESTOR-C 0.022 μF	1	C143, 413, 459	183-1063-31	ELECTRO-C 16V 10 µF	18
C117		POLYESTOR-C 0.047 μF	1	508, 511, 512			**
C521, 522	172-6831-11	POLYESTOR-C 0.068 µF	2	531, 532, 610			
C145, 147, 408	176-1011-00	CHIP-C 100pF	13	618, 629, 637			
410, 518, 701				642, 638, 702			
704, 705, 708				706, 715, 719			
714, 715, 718				C134, 135, 154	183-1063-51	ELECTRO-C 35V 10 µF	7
721				166, 191, 199			
C237, 238, 615			3	232			
		CHIP-C 220pF	3	C403, 406, 716	183-1066-21	ELECTRO-C 10V 10 µF	4
C616	176-2701-00	CHIP-C 27pF	1	720			
		CHIP-C 330pF	3	C419	183-1073-11	ELECTRO-C 6.3V 100 μF	1
C467, 506	176-4701-00		2	C152, 196		ELECTRO-C 10V 100 µF	2
C104, 105, 440	176-4711-00	CHIP-C 470pF	4	C502	183-2253-61	ELECTRO-C 50V 2.2 µF	1
448				C205, 206, 219	183-2256-51	ELECTRO-C 35V 2.2 µF NF	16
C520	176-5601-00		1	220, 432, 433			
C504	176-5611-00	CHIP-C 560pF	1	435, 437, 443			
C111, 407, 409			3	445, 451, 454			
C641	1/6-6811-00	CHIP-C 680pF	1	455, 466, 902			
C505	176-8201-00	CHIP-C 82pF	1	903			
C523, 529	1//-1542-05	CHIP-C 0.15μF	2	C187	183-2263-31	ELECTRO-C 16V 22 µF	1
C457, 462, 524	1//-2242-05	CHIP-C 0.22μF	3	C401, 404, 418	183-3363-21	ELECTRO-C 10V 33 µF	3
C234, 235	178-1022-05	CHIP-C 1000pF	16	C411, 416, 519	183-4753-52	ELECTRO-C 35V 4.7μF	3
239-248, 621				C458, 633	183-4763-11	ELECTRO-C 6.3V 47 µF	2
625, 626, 630	170 1000 05	01110 0 0 01 5	1.00	C131, 613	183-4763-31	ELECTRO-C 16V 47 µF	2
C107, 110	178-1032-05	CHIP-C 0.01 µF	23	C103, 414, 420	183-6843-61	ELECTRO-C 50V 0.68μF	4
114, 127-130				430			
192, 301, 415				C132, 133	183-6863-21		2
431, 620, 623				C184, 186	184-3373-32	ELECTRO-C 16V 330 μ F	2
801-810							

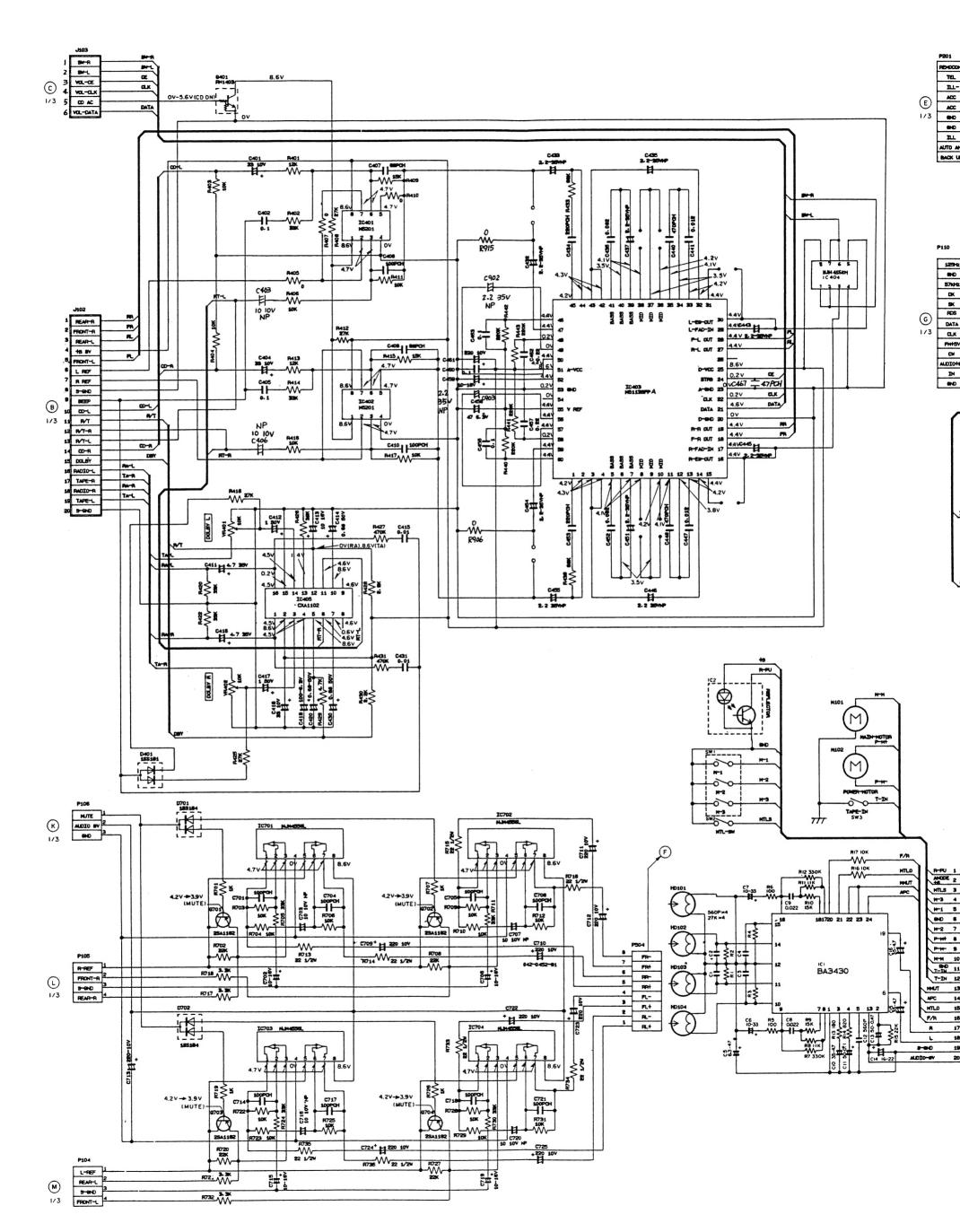
## • SIDE P.W.B

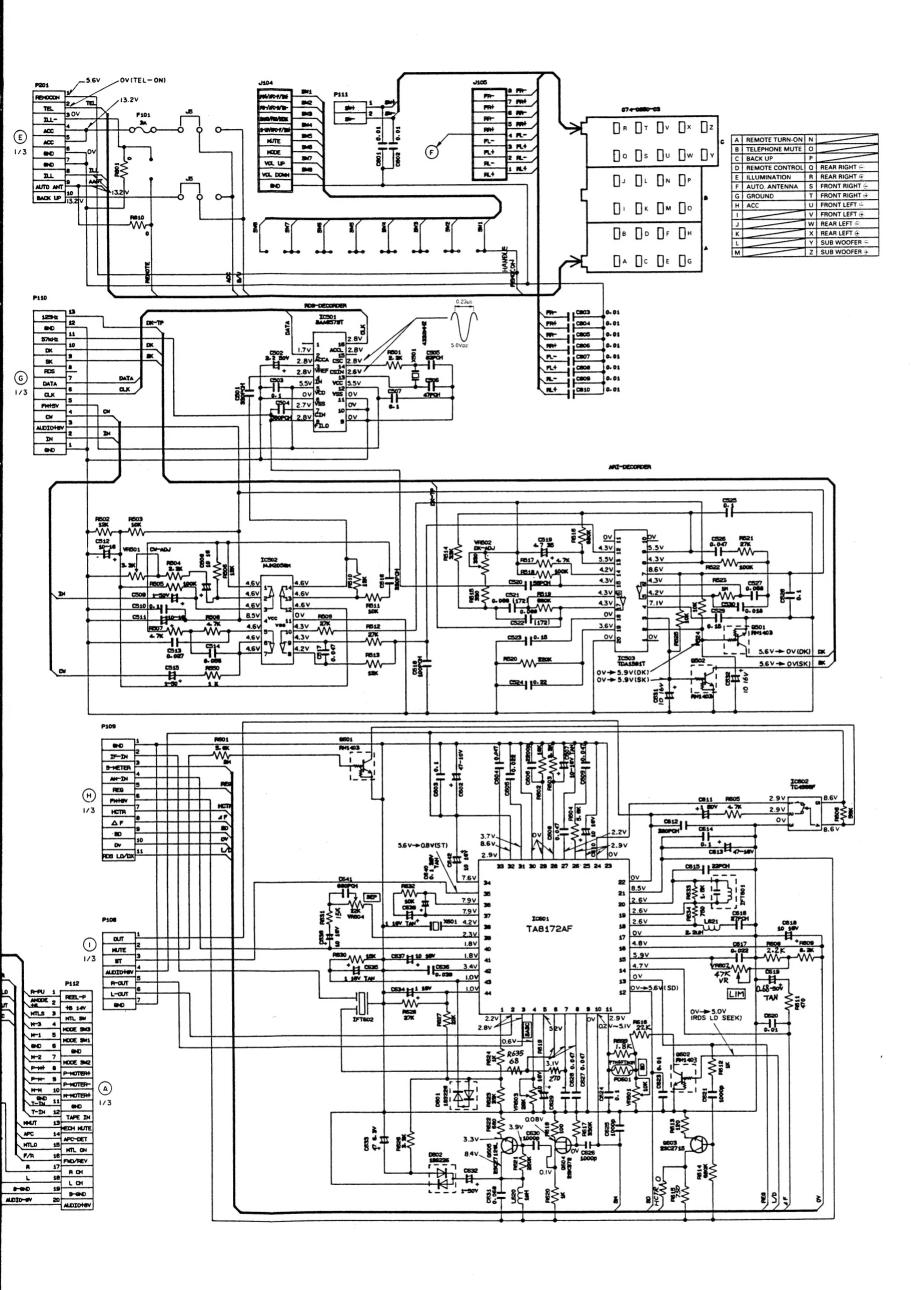
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C6, 7	042-0476-01	ELECTRO-C 10V 33 µF	2
IC1	051-1546-10		1
C8,9	173-1231-10	POLYESTOR-C 0.012 µF	2
C1-4, 12	175-5611-50		5
C11	183-1043-61	ELECTRO-C 50V 0.1 $\mu$ F	1

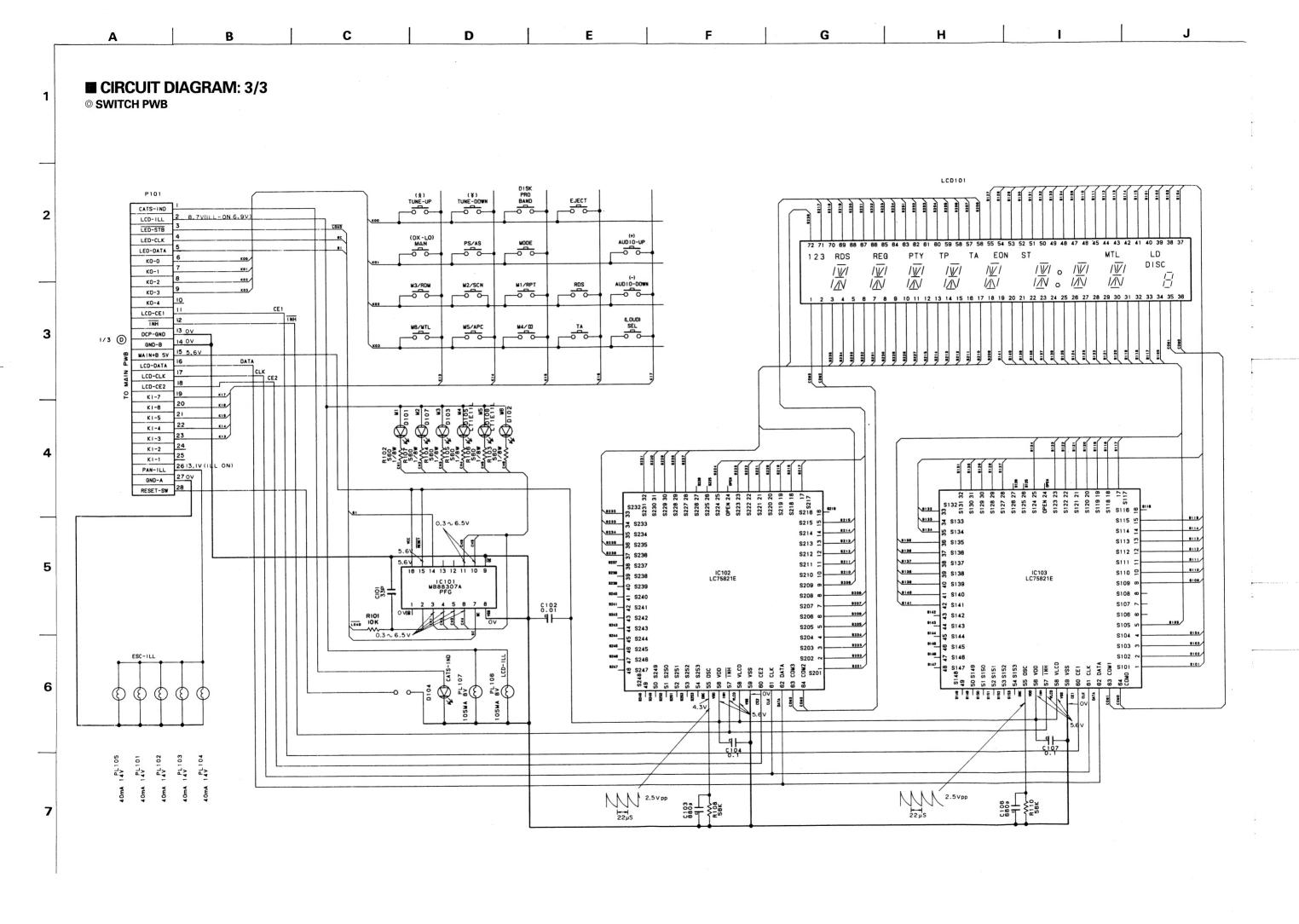
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C14		ELECTRO-C 16V 22 $\mu$ F	1
C13	183-4743-61	ELECTRO-C 50V 0.47μF	1
C10, 15, 16	183-4753-51	ELECTRO-C 35V 4.7 µF	3
C5	183-4763-11	ELECTRO-C 6.3V 47μF	1



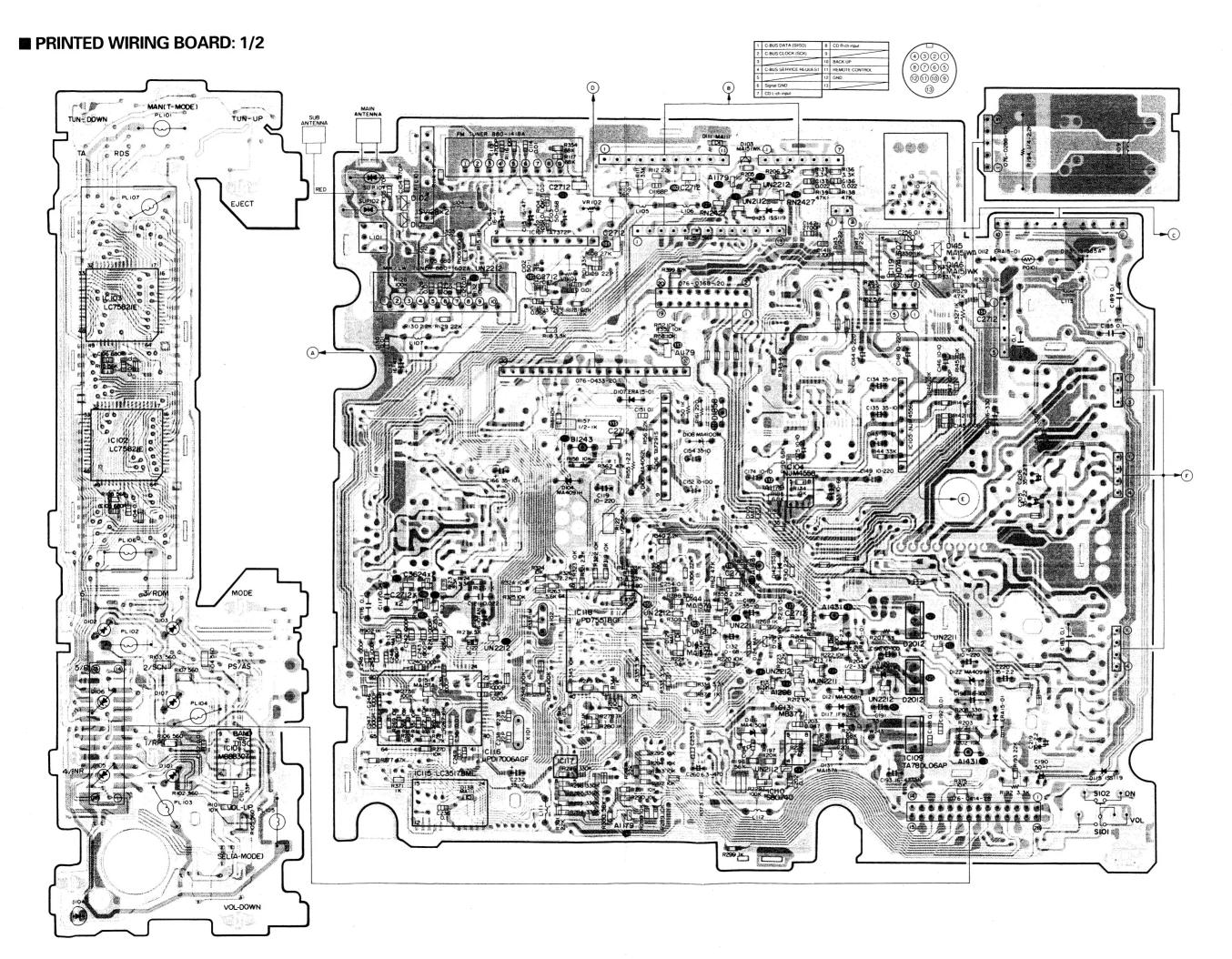








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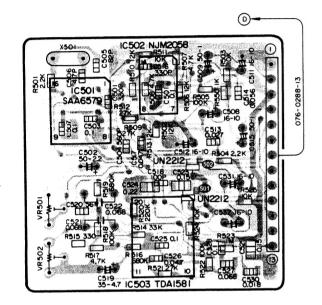


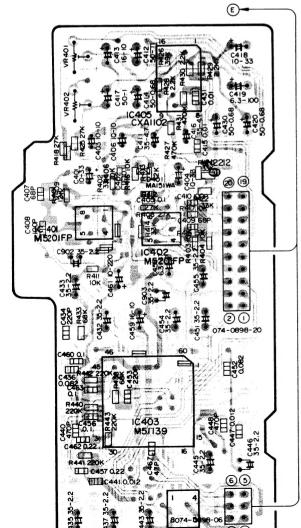
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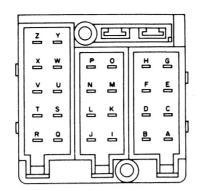
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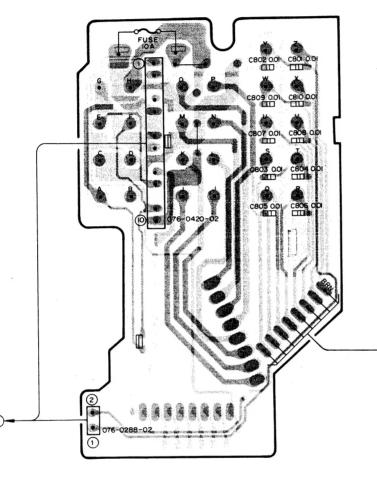
## ■ PRINTED WIRING BOARD: 2/2

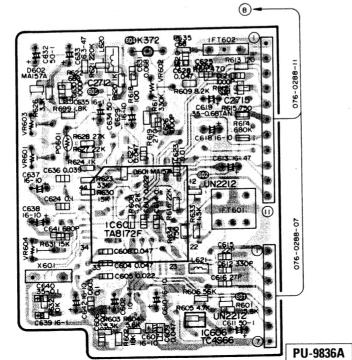
Α	REMOTE TURN-ON	N	
В	TELEPHONE MUTE	0	
С	BACK UP	Р	
D	REMOTE CONTROL	a	REAR RIGHT (
E	ILLUMINATION	R	REAR RIGHT ①
F	AUTO. ANTENNA	S	FRONT RIGHT (
G	GROUND	T	FRONT RIGHT ⊕
Н	ACC	U	FRONT LEFT ⊕
1		٧	FRONT LEFT (+)
J		w	REAR LEFT (
K		Х	REAR LEFT ①
٤		Υ	SUB WOOFER @
М		7	SUB WOOFER (+)

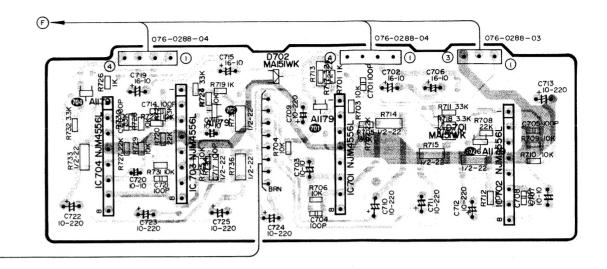


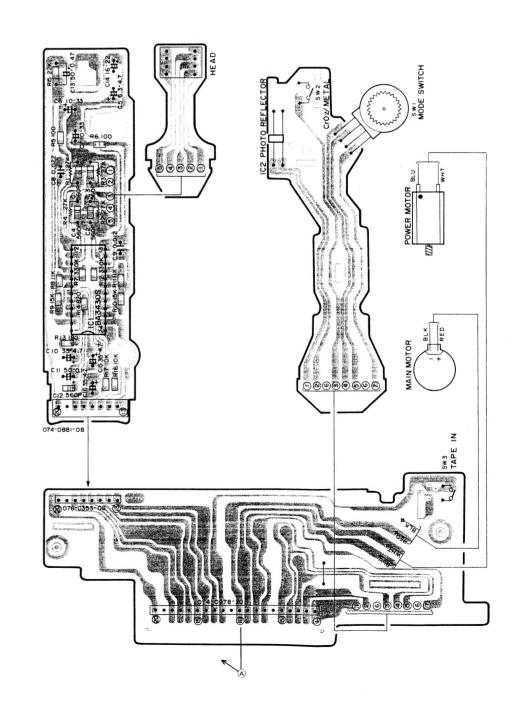










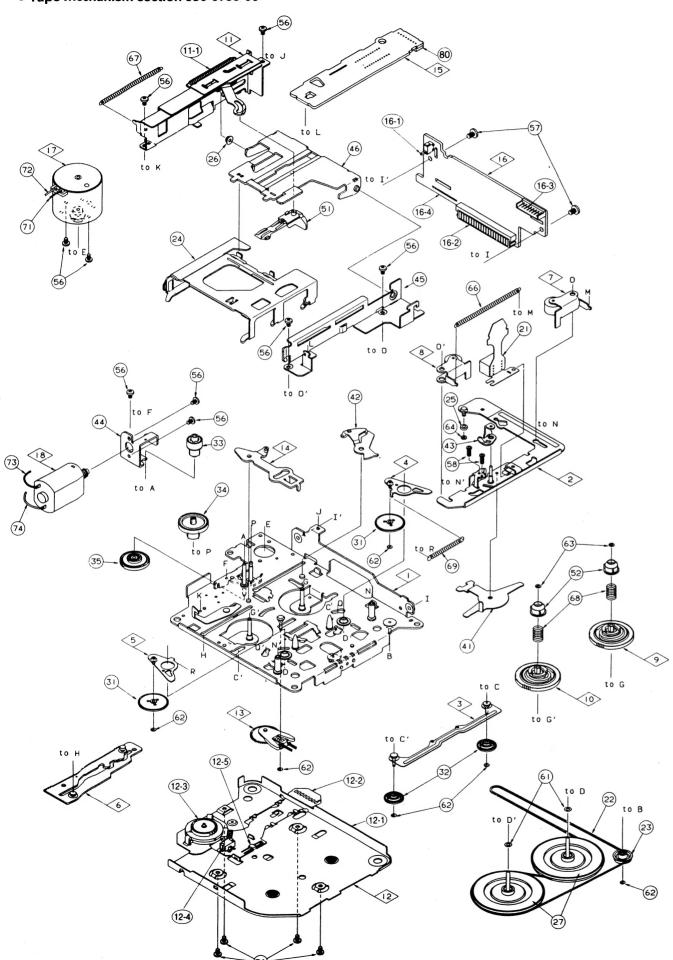


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PU-9836A

## **■ EXPLODED VIEW • PARTS LIST:**

© Tape mechanism section 930-0735-00



NO	PART NO.	DESCRIPTION	QT
1	960-4294-08	DECK PLATE-ASSY	1
2	960-4261-04		1
3	960-4262-03	FF/REW-P-ASSY	1
4	960-4263-01	IDLER-P-ASSY F	1
5	960-4264-01	IDLER-P-ASSY R	1
6	960-4266-05	MODE PLATE-ASSY	1
7	960-4269-04	ROLLER ASSY F	1
8	960-4270-04	ROLLER ASSY R	1
9	960-4271-02	REEL ASSY F	1
10	960-4272-02	REEL ASSY R	1
11	960-4298-90		1
11-1	750-2948-01		1
12	960-4296-90		1
12-1	960-4295-02	BOTTOM P-ASSY	1
12-2	099-9548-00		1
12-3		SWITCH	1
	013-3953-00		1
12-5	051-1114-03	IC NJL5161K-P	1
	746-0767-00	WASHER	2
13	960-4282-03	DETECT-SUB-ASSY	1
14	960-4301-02	PLAY-L-ASSY GF	1
15	099-9540-00	SIDE PWB	1
15-1	074-0881-08	OUTLET SOCKET*8P	1
16	990-0692-00	REAR-PWB-ASSY	1
16-1	013-3906-00	SWITCH	1
16-2		OUTLET SOCKET*20P	1
	076-0353-08	PLUG*8P	1
16-4	099-9541-00	PWB	1
17	SMA-130-100	DC-MOTOR*MAIN	1
18	SMA-131-100	DC-MOTOR*POWER	1
21	011-0307-28	HEAD	1
22	602-0118-00	BELT	1
23	604-0046-00	TENSION PULLEY	1

NΩ	PART NO.	DESCRIPTION	OTV
NO		1	QTY
24	606-0101-05	PACK GUIDE	1
25	610-0342-01	HEAD-P-ROLLER	1
26	610-0343-00	GUIDE A ROLLER	1
27	611-0091-02	FLYWHEEL	2
31	613-0285-02	IDLER GEAR	2
32	613-0286-02	FF/REW GEAR	2
33	613-0288-01	HERICAL GEAR	1
34	613-0289-01	GEAR A	1
35	613-0290-00	POWER GEAR	1
41	630-2597-01	CHANGE LINK	1
42	630-2598-04	EJECT LINK	1
43	630-2600-01	ADJUST LINK	1
44	630-2601-02	MOTOR PLATE	1
45	630-2626-01	PWB FRAME	1
46	630-2605-01	GUIDE ARM	1
51	631-1992-01	PACK STOPPER	1
52	631-1993-01	SLIDE BUSH	2
56	716-0484-00	SCREW*M2X2.25 B	13
57	716-0761-01	SCREW	2
58	716-0833-10	AZIMUTH SCREW	2
61	746-0624-00	WASHER	2
62	746-0724-00	WASHER	6
63	746-0761-00	WASHER	2
64	746-0762-00	WASHER	1
66	750-2946-02	PINCH SPRING	1
67	750-2947-01	EJECT-P-SPRING	1
68	750-2949-00	SLIDE SPRING	2
69	750-3017-01	IDLER-P-SPRING	1
71	800-4911-60	VINYL-COAT-WIRE*BLK	1
72	802-4911-60	VINYL-COAT-WIRE*RED	1
73	806-4914-60	VINYL-COAT-WIRE*BLU	1
74	809-4914-60	VINYL-COAT-WIRE*WHT	1